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[Despatch Abstract.]

MALARIA : REGIONAL MALARIA ORGANISATION COIMBATORE, BELLARY, PATTUKKOTTAI AND VIZAGAPATAM REGIONS : PROGRESS REPORT FOR THE HALF YEAR ENDING 30th September 1947.

From

Rao Bahadur Dr.R.M.Mathew,
D.P.H.,D.T.M.& H.,M.R.C.P.,
Director of Public Health,
M a d r a s.

To

The Secretary to Government,
Educational and Public Health Deptt.,
M a d r a s.

D.No.235-Mal.47 dated 10th November 1947.

Sir,

Sub: ANTIMALARIAL OPERATIONS - Regional Organisation, Bellary - Report for half-year ending with the 30th September 1947 - Forwarding of.

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F o r w a r d e d.

Malaria investigation and control work in the Bellary region have been carried out satisfactorily during the half year under report.

Sd/ for Director of Public Health
Madras.

R.C.No.251-B/47 dated the 28th October 1947.

REGIONAL MALARIA ORGANISATION, BELLARY.

Half-yearly report for the half year ending 30th September 1947.

STAFF: The staff as sanctioned was maintained at full strength with posting of a 2nd Assistant Regional Malariologist. The Mobile Unit which had been working in Chittoor District was withdrawn from the beginning of April 1947, as all the necessary entomological data had been collected.

Great difficulty is still being experienced in getting suitable technical staff, chiefly on account of the fact, that the salary offered is very low compared to similar posts in other Departments and the arduous nature of the duties.

The following were the chief activities of the Organisation:

1., INVESTIGATION WORK: Investigation work in Chittoor district was practically completed and the report is being prepared and will be submitted shortly.

Short investigations were undertaken and seprate reports submitted regarding the malaria problems in Shriharikota Island of Nellore District; Hirehal and Neelagunda of Bellary District; colonisation areas for demobbed soldiers at Ahobilam and Kristemsettipalli of Kurnool district, Pottempad of Nellore district; some sites in Anantapur, Dharmavaram, Penukonda, Hindupur, and Madakasira taluks of Anantapur district, Tiruttani and Chittoor taluks of Chittoor district. Investigations were also conducted in about 20 Yenadi colonies in Chittoor district.

Kalahasti Panchayat was inspected at the request of the Executive Officer for suggesting a scheme for mosquito nuisance. Spleen and parasite surveys in areas not as yet surveyed so far in Bellary and Chittoor districts were undertaken with a view to prepare a malaria spot map of the two districts. Arrangements are being made to take up investigation work in Kurnnol district shortly.

CONTROL WORK: One round of residual spraying with DDT was carried out by this Organisation with successful resulets at OWK (Kurnool district) during March, April; at Neelagunda of Bellary district, Hirehal panchayat of Bellary district. There was localised malaria in the Fort and Cantonment area of the Bellary Municipality and one round of DDT spraying was carried out here also. The Prohibition

Training School, Bellary, were a few cases of malaria were reported was also sprayed twice.

RESERACH: Insecticides: Experiments both in the field and in the Laboratory were undertaken simultaneously in order to test the relative efficacy and residual action of DDT kerosene emulsion and DDT in suspension. The following strengths were tried - 5% DDT in kerosene, 5% DDT in suspension and 2.5% DDT in suspension. The suspension mixture was as per the formula of the Delhi Malaria Institute. The 2.5% DDT suspension was not found very effective, but the 5% suspension compare very favourably with the kerosene solution of the same strength in effects besides being cheaper and easy of transport.

(2) Experiments were also undertaken to test the efficacy of DDT on agricultural pests like the Redy Hairy caterpillar, which was found to destory the groundnut and cotton crops completely at Adoni Taluk. These attach the tender sprouting plants working havoc on them and are found in abundance in the fields during that season. The hatching time of the eggs correspond with the sprouting season and if the plants are protescted for a few days during this period for a few days, a humper crop is generally assured to the ryots, weather conditions being favourable. Various strengths were tried in experimental plots with the help of the Special Local Agricultural Officer in charge of it, 1.25% of DDT solution was found to give excellent results. It is possible that DDT in weaker strengths might as well have given similar results, but unfortunately this could not be done. Even in 1.25% strengths, it works out as an economical problem for the ryot accordding to the figures given by the Special Officer, giving a net profit of Rs.30/- per acre. Separate and detailed reports regarding the above have been submitted.

PALUDRINE THERAPY: Over 200 cases of patients suffering from malaria either positive to blood examination or clinically resembling malaria in Bellary, Kakkaveniahalli, and Halagundi were treated with different regimens and the cases followed up. It has been found that it is very effective against P falciparum infections, even one dose giving a clinical cure, although relapses occured in such cases. A four days course gave good results in such cases. In the case of bengign tertain and quartan infections prolonged course of about 10 days was found necessary, and in a few cases this had to be further reinforced by a small dose every four days for the next two or three months.

The drug was not found effective against the sezual forms of the parasite, which continued to persist in spite of several days treatment. No toxic effects were observed in any cases. Monthly and detailed reports regarding these are being submitted separately.

TRAINING: Bellary serves as a Training Centre for Public Health Department Officers in this region in malariology. The District Health Officers of Cuddapah, Kurnool, Anantapur and the Medical Officer, Pacheru were given intensive course of training in the use of DDT for 2 days. The Municipal Health Officer, Nandyal and the Assistant District Health Officer, Cuddapah, were also given a course of training in malariology extending over a period of 15 days. Several Sanitary Inspectors, Health Inspectors, Vaccinators, Masitries and Field Assistants, were also given a course of training and those successfully undergoing the course, awarded a certificate on the results of an examination held at the end of the course.

The following persons underwent a course of training in the use of DDT.

1.	Dr. Laxmana Char	.. District Health Officer, Kurnool.
2.	Dr. Ramachandra Pai	.. District Health Officer, Cuddapah.
3.	Dr. Rajaratnam	.. District Health Officer, Anantapur.
4.	Dr. Rama Char	.. Medical Officer, Pacheru.

Training in malariology was given to the following:

1.	Dr.Govindarajulu	.. Municipal Health Officer, Nandyal
2.	Dr.Seshagiri Rao	.. Asst. District Health Officer, Cuddapah
3.	S. Rajaram	.. Sanitary Inspector, Tirumalai Hills.
4.	S. Balamukunda Rao	.. Sanitary Inspector, Anantapur.
5.	Sankara Gowd	.. Vaccinator, Hospet.
6.	K. Laxmana Rao	.. Health Inspector, Madhavaram T.Project
7.	Obalesu	.. Health Inspector, Hagari T.Project.

PROPAGADA: Lectures on malaria with suitable demonstrations were delivered to the pupils of the Rural Development School, Village Officers training classes, St. Phenomena convent. The organisation also took part in the exhibition organised by the Karnatka Conference at Harpanahalli which was was opened by the Honourable the Minister for Public Health. The Laboratory is visisted by many persons.

Besides, technical advice is frequently given to all local bodies and Health Officers whenever asked for and identification of mosquitoes and examination of blood smears carried out at the request of the Health Officers

ANTI-MALARIA OPERATIONS IN THE REGION: Good control work is being turned out under separate Health Officers and Staffs in the Tungabhadra Project Area, Kadiri Taluk, Tirumalai Hills, Cuddapah Municipality, under the

Municipal Health Officer, Coastal belt in Nellore district under the District Health Officer, Nellore, Kurnool Town under the Municipal Health Officer, details are furnished below:

TUNGABHADRA PROJECT AREA: The control work in about 67 endemic village of the Project Area including Hospet Municipality are being conducted under a First Class Health Officer. The control operations were carried out at the Damsite, Hagari Regulator Works, in Labour camps and in the endemic villages. The measures were of larvicidal in nature, such as Parisgreening of breeding places, minor engineering measures, like filling, and levelling up of pits, draining away of water collectionsl clean weeding of canals and channels. Besides these anti-larval measures, spray killing of the adult mosquitoes was systematically carried out, by means of spraying operation with DDT and pyrethrum at the Damsite, Hospet Town in Labour camps and in the Endemic villages. The spraying operations were intensifi especially in the later months of this half year, which period coincides with the onset of transmission period, and it was due to this that the Malaria incidence which showed a slight increase in the month of June at the damsite was markedly reduced now. Systematic treatment of all fever cases, with mepacrine and cinchona febrifuge tablets also contributed towa a fall in the morbidity due to malaria in Tungabhadra Project area.

CUDDAPAH DISTRICT - CUDDAPAH MUNICIPALITY: The Malaria control measures were in operation in this Municipality under the immediate control of Municipal Health Officer. The Bugga Vanka, which is the main danger spot in the town, though canalised for a distance of 2 miles to facilitate free flow of water, was again silted up especially in the canalised portion, due to heavy rains, thus hampering the flow of water and favouring the formation of small pools in the bed of the Vanka. The matter was under correspondance between the Health Officer and the Public Works Department authorities, regarding the removal of silt from Vanka. Meanwhile, regular larvicidal measures such as parisgreening, oiling of all the breeding places in the town, as well as in the pools of the Vanka were gone through. Other anti-malarial measures include stocking of all the wells with larvivorous fish. Regular cleanweeding of all canal and channels and covering up of Burrow pits. The anti-malarial operation on the whole were satisfactory and giving good results. The following hospital statistics bear testimony to the above statement:-

Month.	Number of malaria cases treated. 1945	1946
January	1395	666
February	1035	510
March	1007	409
April	853	358
May	725	270
June	591	356
July	707	364
August	1548	453
September	1451	537
October	1566	537
November	1096	874
December	864	782

However, during the present year the figures are a little on the up-grade.

KURNOOL DISTRICT - KURNOOL MUNICIPALITY: Anti-malarial measures in the Municipality were carried out with good results. Usual anti-larval measures were being carried out regularly once a week, within the town proper and a half a mile radious of it. A number of persons were served with notices to fill up the burrow pits in their lands and some other with notices to raise the level of their low and fallow lands. Other cuticine measures include treating of all cess pits with rag balls soaked in oil, draining away all the sullage water and other water stagnations by rough canalisation of earthen drain, connecting all the small burrow and quarry pits by means of improvised earthen drains with each other and finally leading all the water stagnations from there to a big pit which was attended to with usual anti-larval measures. Due to these various measures, there was a great reduction in the spleen rates in many of the endemic foci in the town. The mosquito nuisance is also reported to be considerably less.

The Assistant Director of Public Health, Madras, visisted the place in the month of July and made some suggestions.

RUDRAVARAM PROJECT: This scheme sachioned in G.O.No.303 (Ms) dated 6th February 1946 for the control of work of malaria in the villages affected by the project has had many set back on account of difficulties in getting the suitable personnel, the measures were chiefly of larvicidal such as parisgreening of all breeding places within half a mile radius of the villages. The District Health Officer, Kurnool, has been instructed to carry out spraykilling operation with pyrethrum extract instead of ~~larvidi~~ larvicidal measures. The Regional Malariologist, Bellary, visisted the place last month in connection with selecting suitable sites for the conolisation scheme.

AHOBILAM COLONY: Two sprayings with prethrum extract a week under the supervision of Father Hanracts in the tranmission season have given very good results in this colony at a low cost.

NANDYAL MUNICIPALITY: Anti-malarial and anti-culicine measures undertaken in this Municipality were purely anti-larval in nature, and these include treating of all cess pools and Kutcha drains with oil regularly, treating all the wet lands with parisgreen at weekly intervals.

NELLORE DISTRICT- ANTI-MALARIA SCHEME IN COASTAL TALUKS: This scheme is under an Entomological Assistant. The control measures were mainly larvicidal in nature, Parisgreening, oiling, stocking of wells with gambusia fish and other minor engineering work were carried out at regular intervals. Treatment of patients with quinine, mepacrine, cincohna febrifuge, was also done. There is marked decline in the morbidity as illustrated by the following statement:

Name of the village.	Cases treated in June 1946	Cases treated in June 1947.
1. Ramayapatnam	121	79
2. Karedu	207	178
3. Utakur.....	383	323
4. Alaganipad	429	313
5. Ramathirtham	396	321
6. Kodur	110	41

NELLORE MUNICIPALITY: The town is divided into 7 blocks and each block is attended to once in a week. The control measures were purely larvididal in nature, such as oiling of cess pools, earthen pits and other stagnant water collections, oiling and canalisation of earthen drains.

CHITTOOR DISTRICT - TIRUMALAI HILLS: Malaria control scheme is worked under a separate staff with a second class Health Officer. The measures consisted of routine larvicidal measures such as oiling, parisgreening of all breeding places and adulticide measures such as spraying with DDT As this was the beginning of the transmission period, adult spraying was done briskly and are round of spraying was already completed. These measures have effectively controlled the disease as is apparant from the following statements:

Month.	Malaria cases treated.		
	1945	1946	1947.
January	272	63	39
February	302	110	48
March	429	97	64
April	402	109	62
May	276	125	76
June	226	116	82
July	211	114	74
August	395	129	92
September	169	93	
October	127	67	
November	121	69	
December	69	27.	

	Spleen rate comprarations
1945.	.. 29%
1946	.. 9%
1947.	.. 4.46%

ANANTAPUR DISTRICT - KADIRI SCHEME: This is a special scheme sanctioned by Government in G.O. No. 2280 P.H. to combat the malaria epidemic in Kadiri Taluk in Anantapur district. Malaria investigation combined with control work in 18 endemic villages were in progress under a second class Health-Officer. On account of various local causes such a s outbreak of plague, non-availability of buildings and difficulty in securing suitable trained personnel, the work lagged behind at the beginning. Now the work that is being carried on is mostly control work in the endemic village, which includes the routine anti-larval measures. To s et up the investigating side of the work and with a view to suggest some permanent measures, the Regional Malariologist, Bellary, paid a visiet to Kadiri last month, and drawn out a detailed programme of work regarding the investigation work. Since there is no Entomological Assistant in the staff that is sanctioned, an Entomological Assistant from this organisation is deputed to help in the investigation work. As far as the control work of the scheme is concerned it is satisfactory and the resulsts are encouraging as there is definite fall in spleen rates and morbidity figures.

BELLARY DISTRICT - BELLARY MUNICIPALITY: Anti-malarial and anti-culicine measures were in force in this Municipality. The ususal foci of infection, Nallacheruvu quarry pits are bing oiled and kept free from breeding after systematic marginal clean weeding. These were supplemented by adult spraying during transmission season, in such of endemic localities as Fort Area. The malarial incidence was kept at a low ebb. The hospital institutions were addressed to s end

monthly statistics for immediate check up of the incidence.

HOPSET MUNICIPALITY: Control work in this Municipality consists of routine anti-larval measures like, draining away water stagnations, oiling of cess pools and parisgreening of irrigation channels and minor engineering works like cleanweeding of Raya canal etc. Adult spraying with DDT 5% was also carried out during this trasnmission period. As a result of these measures there is great improvement in the mosquito nuisance of the town.

Sd/. Regional Malariologist,
Bellary.

GOVERNMENT OF MADRAS
Abstract.

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MALARIA - Regional Malaria Organisation, Coimbatore, Bellary, Pattukkottai and Vizagapatam regions - Progress report for the half year ending the 30th September 1947.

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Education and Public Health Department.

G.O. (Ms) No. 268 P.H. Dated, the 28th January 1948

READ - the following:-

From the Director of Public Health, 74639-1.Mal. dated the 6th November 1947, D.No.235-Mal.47 dated the 10th November 1947, 76551-Mal. dated the 13th November 1947; 78857-Mal.1/47 dated the 19th November 1947 and 78857-Mal.2/47 dated the 4th December 1947.

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ORDER:

R e c o r d e d.

(By order of His Excellency the Governor)

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Jt.Secretary to Government.

To the Director of Public Health.
Copy to Development Department.(P&D)
Copy to Public (Political) Department.
Copy to Public Works Department.

/True copy/

Sk.

Superintendent,
Madras Records Office, Egmore.

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